

[54] **APPARATUS AND METHOD FOR REMOTELY MONITORING AND ALTERING BRAIN WAVES**

[75] Inventor: **Robert G. Malech**, Plainview, N.Y.

[73] Assignee: **Dorne & Margolin Inc.**, Bohemia, N.Y.

[22] Filed: **Aug. 5, 1974**

[21] Appl. No.: **494,518**

[52] **U.S. Cl.**..... **128/2.1 B**

[51] **Int. Cl.<sup>2</sup>**..... **A61B 5/04**

[58] **Field of Search** ..... 128/1 C, 1 R, 2.1 B, 128/2.1 R, 419 R, 422 R, 420, 404, 2 R, 2 S, 2.05 R, 2.05 V, 2.05 F, 2.06 R; 340/248 A, 258 A, 258 B, 258 D, 229

[56] **References Cited**

**UNITED STATES PATENTS**

2,860,627	11/1958	Harden et al.	128/2.1 B
3,096,768	7/1963	Griffith, Jr.	128/420
3,233,450	2/1966	Fry	128/2.1 R
3,483,860	12/1969	Namerow	128/2.05 F
3,495,596	2/1970	Condict	128/1 C

3,555,529	1/1971	Brown et al.	128/2.1 R
3,773,049	11/1973	Rabichev et al.	128/1 C
3,796,208	3/1974	Bloice	128/2 S

*Primary Examiner*—William E. Kamm

*Attorney, Agent, or Firm*—Darby & Darby

[57] **ABSTRACT**

Apparatus for and method of sensing brain waves at a position remote from a subject whereby electromagnetic signals of different frequencies are simultaneously transmitted to the brain of the subject in which the signals interfere with one another to yield a waveform which is modulated by the subject's brain waves. The interference waveform which is representative of the brain wave activity is re-transmitted by the brain to a receiver where it is demodulated and amplified. The demodulated waveform is then displayed for visual viewing and routed to a computer for further processing and analysis. The demodulated waveform also can be used to produce a compensating signal which is transmitted back to the brain to effect a desired change in electrical activity therein.

**11 Claims, 2 Drawing Figures**

